

REMARKS

Applicant appreciates the detailed examination evidenced by the Office Action mailed May 7, 2004 (hereinafter the Office Action). Claims 1-5, 13, and 21 have been amended. Applicant submits that the pending claims are patentable over the cited references for the reasons provided below.

Applicants File Herewith a Terminal Disclaimer to Overcome the Obviousness-Type Double Patenting Rejection of Claims 1-28:

Claims 1-28 have been rejected under nonstatutory double patenting over U.S. Patent No. 6,446,110 to Lection et al. (hereinafter "Lection"). Applicants submit herewith a Terminal Disclaimer disclaiming additional term over the Lection patent. Applicant's agreement to provide a Terminal Disclaimer is to expedite issuance of the present case and does not admit that the present invention is obvious in light of the Lection patent. Withdrawal of the obviousness-type double patenting rejection is respectfully requested.

Claims 1-28 are Patentable Over Lection

Claims 1-28 have been rejected under 35 U.S.C. §102(e) as anticipated by Lection. Amended independent Claim 1 recites in part:

1. A computer program product for efficiently extracting data from a data stream, the computer program product embodied on one or more computer-readable media and comprising:

computer-readable program code for defining two or more data extraction rules, each of the rules comprising one or more rule components;

...
computer-readable program code for comparing the incoming data to selected ones of the stored rules until detecting a matching rule;

computer-readable program code for extracting data from the incoming data, upon detecting the matching rule, according to the matching rule; and

computer-readable program code for storing the extracted data in an extensible document which is created according to the tags and structure of a selected one of the templates that is associated with the matching rule.

Accordingly, at least two data extraction rules are defined, a matching rule is detected by comparing the incoming data to the rules, data is extracted from an incoming data stream based on a detected matching rule, and the extracted data is stored in an extensible document which is created according to the tags and structure of the template associated with a matching rule.

In rejecting Claim 1, the Office Action states on page 4 that Lection, at Column 6, lines 8-12, discloses "computer-readable program code means for defining one or more data extraction rules", "computer-readable program code means for comparing the incoming data to selected ones of the stored rules until detecting a matching rule", and "computer-readable program code means for extracting data from the incoming data, upon detecting the matching rule, according to the matching rule; and computer-readable program code means for storing the extracted data in an extensible document which is created according to the tags and structure of a selected one of the templates that is associated with the matching rule". However, the relied-upon portion of Lection recites only the following:

A host datastream is parsed once into an XML format that is interchangeable with any application. A set of tags are defined to store the field structure and character attributes of the host screen image with its data content in single data unit.

Applicants respectfully submit that, as shown above, Lection does not disclose either: (1) computer-readable program code for defining two or more data extraction rules; (2) computer-readable program code for comparing the incoming data to selected ones of the stored rules until detecting a matching rule; (3) computer-readable program code for extracting data from the incoming data, upon detecting the matching rule, according to the matching rule; or (4) computer-readable program code for storing the extracted data in an extensible document which is created according to the tags and structure of a selected one of the templates that is associated with the matching rule.

For at least these reasons, Applicants respectfully submit that Claim 1 is patentable over Lection.

Independent Claims 9 and 17 contain similar features to Claim 1, and are submitted to be patentable over Lection for the reasons provided above for Claim 1.

Dependent Claims 2-8, 10-16, and 18-28 are patentable as depending from allowable independent claims.

Independent Claims 1, 9, and 17 Are Patentable Over Milleker

Claims 1-28 have been rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,523,042 to Milleker et al. (hereinafter "Milleker").

Amended independent Claim 1 recites in part:

1. A computer program product for efficiently extracting data from a data stream, the computer program product embodied on one or more computer-readable media and comprising:

computer-readable program code for defining two or more data extraction rules, each of the rules comprising one or more rule components;

computer-readable program code for defining one or more output document templates for storing extracted data, wherein each of the templates comprises one or more tags which are hierarchically structured and wherein each template is to be associated with one or more of the data extraction rules;

computer-readable program code for associating at least one of the templates with at least one of the rules;

...
computer-readable program code for storing the extracted data in an extensible document which is created according to the tags and structure of a selected one of the templates that is associated with the matching rule.

Accordingly, one or more output document templates are defined for storing extracted data, and each of the templates comprises one or more tags which are hierarchically structured, and is associated with one or more data extraction rules. Data is extracted from an incoming data stream and stored in an extensible document which is created according to the tags and structure of the template associated with a matching rule.

In rejecting Claim 1, the Office Action states on page 6 that Milleker, at Column 4, lines 56-60, discloses "computer-readable program code means for defining one or more output document templates for storing extracted data". However, the relied-upon portion of Milleker recites the following:

The coordinator (via the map interpreter) reads the map file and determines that an attribute from an object model is needed. The coordinator (via the map interpreter) makes a request of the searcher to get the needed attribute information. The searcher finds and returns the requested attribute.

Applicants respectfully submit that, as shown above, Milleker does not disclose code for defining one or more output templates for storing extracted data as stated by the Office Action.

The Office Action further states on page 6 that Milleker, at Column 4, line 61 to Column 5, line 9, discloses that "each of the templates comprises one or more tags which are hierarchically structured and wherein each template is to be associated with one or more of the data extraction rules". However, the relied-upon portion of Milleker recites the following:

The coordinator (via the map interpreter) tells the writer to add the obtained attribute information to the message under construction. The writer formats the attribute information as defined by the map file and then appends the formatted attribute to the message under construction.

The coordinator reads the map file and may encounter a command that invokes a rule. In this case, the coordinator makes a request of the ruler to execute the specified rule. The ruler makes a request of the searcher to get, if necessary, attribute information needed during execution of the rule. The searcher finds and returns the requested attribute. The coordinator tells the writer to add the obtained attribute information to the message under construction. The writer formats the attribute information as defined by the map file and then appends the formatted attribute to the message under construction.

Applicants respectfully submit that, as shown above, not only does Milleker not disclose templates, it further does not disclose that each template comprises one or more tags which are hierarchically structured, and it does not disclose that each template is to be associated with one or more of the data extraction rules, as stated by the Office Action.

The Office Action further states on page 7 that Milleker, at Column 4, lines 61-65, discloses "computer-readable program code means for storing the extracted data in an extensible document which is created according to the tags and structure of

a selected one of the templates that is associated with the matching rule". However, the relied-upon portion of Milleker recites the following:

The coordinator (via the map interpreter) tells the writer to add the obtained attribute information to the message under construction. The writer formats the attribute information as defined by the map file and then appends the formatted attribute to the message under construction.

Applicants respectfully submit that, as shown above, not only does Milleker not disclose templates or hierarchical tags associated with templates, it further does not disclose that extracted data is stored in a extensible document which is created according to tags and structure of a selected template which is associated with a matching rule, as stated by the Office Action.

For at least these reasons, Applicants respectfully submit that Claim 1 is patentable over Milleker.

Independent Claims 9 and 17 contain similar features to Claim 1, and are submitted to be patentable over Milleker for the reasons provided above for Claim 1.

Dependent Claims 2-8, 10-16, and 18-28 Are Patentable Over Milleker

Dependent Claims 2-8, 10-16, and 18-28 are patentable as depending from allowable independent claims. Moreover, these claims provide further bases for patentability.

Claims 2, 10, and 18 recite that rule components of a particular rule are associated with tags of a particular template. As explained above, Milleker discloses neither use templates nor tags, and, consequently, does not disclose associating components of a rule with tags of a particular template.

Claims 6, 14, and 22 recite that components of the rules specify textual patterns. The Office Action contends on page 7 that Milleker, at Column 4, lines 61-65, discloses that "components of selected ones of the rules specify textual patterns". However, the relied-upon portion of Milleker does not disclose rules that specify textual patterns.

Claims 7, 15, and 23 recite that components of the rules specify data element and attribute patterns. The Office Action contends on page 8 that Milleker, at Column 1, line 65 to Column 2, line 3, discloses that "components of selected ones of the rules specify data element and attribute patterns". However, the relied-upon portion of Milleker recites the following:

means for developing a translation map that identifies organizational and content based rules for translating the non-hierarchical information into an hierarchical information system; and means for translating the non-hierarchical information for storage into the hierarchical information system according to the rules for translating.

As shown above, the relied-upon portion of Milleker does not disclose rules specifying data element and attribute patterns.

Claims 5, 13, and 21 have been amended to recite that the components of the selected ones of the rules specify attribute patterns that comprise at least one of a color attribute, an input-inhibited attribute, and a reverse video attribute. Support for this amendment is provided by, for example, page 20, lines 9-11 of the specification. As explained above with regard to Claims 7, 15, and 23, Milleker does not disclose rules specifying attribute patterns, and, consequently, does not disclose attribute patterns that comprise at least one of a color attribute, an input-inhibited attribute, and a reverse video attribute.

Claims 8, 16, and 24 include a combination of the recitations of respective pairs of Claims 6 and 7, 14 and 15, and 22 and 23, and are submitted to be patentable over Milleker for the reasons provided therewith.

In re: Cascio et al.
Serial No.: 09/754,987
Filed: January 5, 2001
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CONCLUSION

In light of the above amendments and remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,


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